

LaoWord 4.1

User's Manual

LAOWORD 4.1 USER'S MANUAL

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1. INTRODUCTION

LaoWord¹ is a Lao enhancement to Word. It is derived from research and software that started in 1996 and that were aimed to ease text typing in Lao, as well as offering a platform for further research in computational linguistics.

LaoWord includes a keyboard layout that offers a phonetic association between the Latin and the Lao letters (for example, *a* will give າ, *A* will give າ, ...). This layout, called "*Lao US*", suit to the US QWERTY keyboard and can be used with any font as soon as it is recognized by the software. The traditional Lao typewriter layout (so-called "*Duang Jan*") is also available, as well as other layouts adapted to French and Danish keyboards. To the date of its issue, LaoWord 4.1 is fully working with more than one hundred fonts (see the list in chapter 3.4 at the "transcribing principles" section).

More generally, LaoWord will give you access, directly in Word, to the following Lao functions:

- Lao keyboards that can be used with any font, Unicode or non Unicode,
- An efficient and practical font change,
- Text selections by entire syllables,
- A small Lao-English lexicon,
- Several romanizations (Pro version²),
- Lao table sorting (Pro version),
- Miscellaneous Lao text formatting functions (Pro version) including:
 - A Lao **text formatting**,
 - **Height selection** (high/low) for accents 1 and 2 (*),
 - **Height selection** (high/low) for "sala u" (*),
 - **Ligature** of accented vowels (*).

(*): These functions are useful for the non-Unicode fonts which have different character codes for accents or "sala u" with different heights or ligatures (e.g. "sala i" + "may tho"). In the Unicode standard, there is only one code for each accent and "sala u" and no code for the ligatures so these rendering improvements are handled by the font itself. Note that only OpenType fonts (e.g. Saysettha OT, KhaoPoun) can provide this function and that TrueType fonts can not.

¹ There are four versions of LaoWord in each of the two languages English and French:

- two 32 bits versions to be used with *Word for Windows 95* (Word 7), *Word 97* (Word 8), *Word 2000* (Word 9), *Word XP / 2002* (Word 10) and *Word 2003* (Word 11):
 - LaoWord 4.1 Standard,
 - LaoWord 4.1 Pro,
- two 16 bits versions to be used with *Word 6* (version dated November 2000):
 - LaoWord6 3.01 Standard,
 - LaoWord6 3.01 Pro.

² The manual is common to the LaoWord 4 Standard and Pro versions. If you are using the Standard version, the explanations given for the transcriptions, the table sorts and the text formatting functions are to be skipped, as you don't have access to these functions.

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	Word 6	Word 95	Word 97	Word 2000	Word XP	Word 2003
LaoWord Version	3.01	4.1	4.1	4.1	4.1	4.1
Lao Keyboards	2	5	5	5	5	5
Font Changes	Yes	Yes	Yes	Yes	Yes	Yes
Unicode Compatibility	No	No	Yes	Yes	Yes	Yes
Lao Selections	Yes	Yes	Yes	Improved	Improved	Improved
Lao-English Dictionary	Yes	Yes	Yes	Yes	Yes	Yes
Romanizations	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)
Sorting	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)
Text formatting Functions	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)	Yes (Pro)

Table 1: Word / LaoWord compatibility and LaoWord's functions

The following image shows the beginning of the famous Lao text, *ຂຸນລູ-ນາງອົວ*, in the Word/LaoWord environment (the LaoWord toolbar is located in the top right of the toolbar under Word menu).

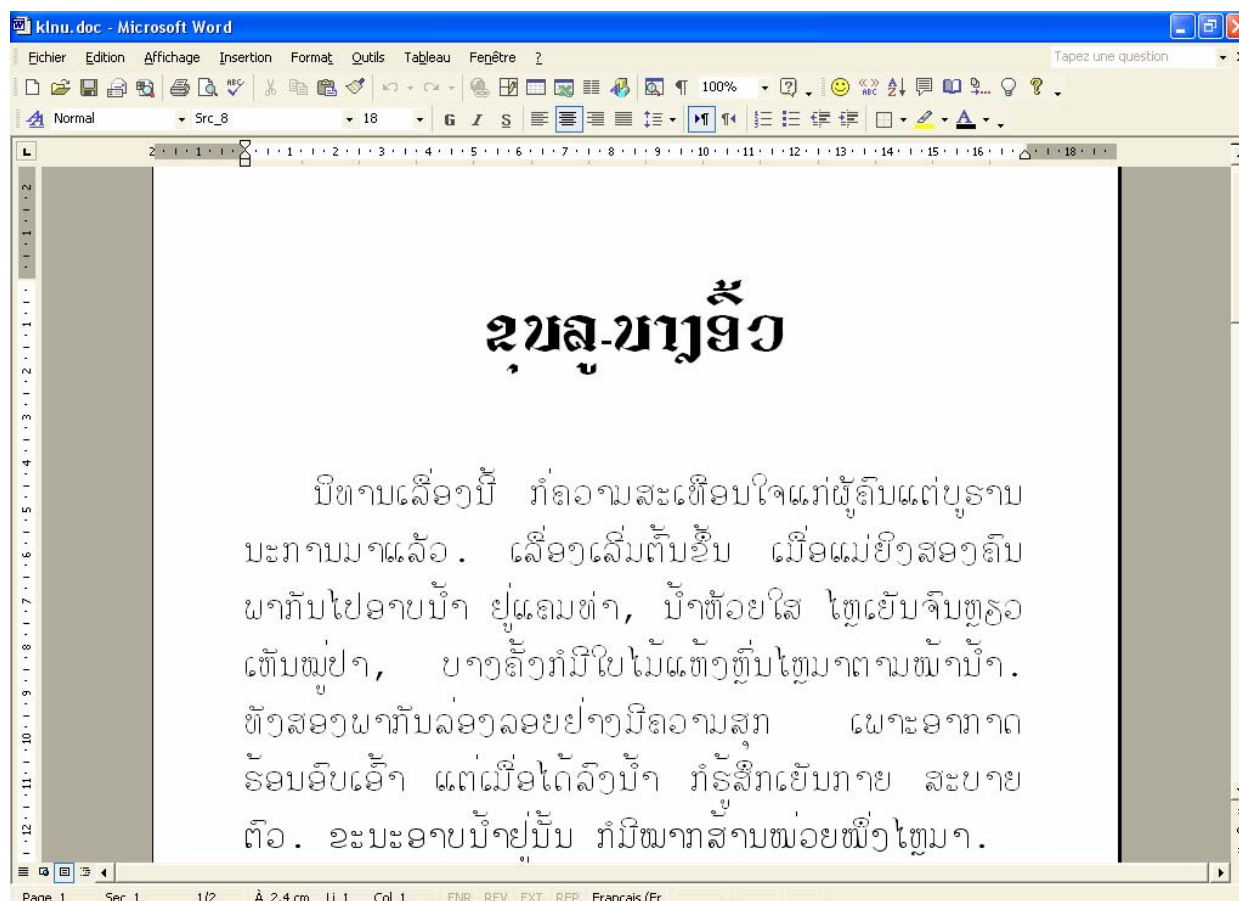


Figure 1: Khun Lu and Nang Ua in the Word / LaoWord environment

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2. LAOWORD TOOLBAR

Introduction

All the Lao functions of LaoWord are accessible via the LaoWord toolbar buttons¹:



Figure 2: LaoWord toolbar

From the left side to the right, the buttons functions are:

- The configuration of LaoWord,
- The Lao font change,
- The Lao table sorting,
- The Lao romanizations,
- The Lao-English dictionary,
- Text formatting functions,
- The Lao-Latin selection for text input,
- The online help.



Configuration of LaoWord (see § 9)

The first button on the left gives you access to the configuration of LaoWord.

You will be offered to select:

- **Your keyboard:** Lao US, Duang Jan, Sida Thong, Lao France, Lao France New,
- The **mouse selection mode:** the Word standard mode or the LaoWord mode (syllabic selections),
- The activation / deactivation of several **keyboard shortcuts**,
- The parameter settings for the **romanization** functions,
- The parameter settings for the **sorting** function (lexicographic order, consonant clusters and digraph places),
- The parameter settings for the **ligatures** functions, both during typing and during font changes,
- The preferred **writing rules:** old or new spelling,
- Arabic or Lao **numbers** (when the font allows it),
- The **LaoWord splash window** activation at the start-up of Word (fishing at the village).

The button image reminds, as in the previous LaoWord versions, the current selection mode. When the *LaoWord* mode will be active (smiling face icon), a "double-click" as well as a "mouse-move" in a Lao text will select the text syllable by syllable.



Lao font change (see § 3.3)

One of the most useful functions is certainly the **font change** that you will access through the second icon. Clicking on this icon will give you the list of all the Lao fonts for which you can use the LaoWord functions (i.e. those which are both installed on your PC and recognized by LaoWord). You will then have the possibility to change for any of these fonts without having to mind the source and destination

¹ Except the text typing itself, the syllabic selections and the keyboard shortcuts (hot keys) that are directly accessible.

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fonts compatibility. This is very useful to transform texts typed with one font in another font, while the direct modification is impossible due to the lack of standardization.

If you are currently typing a text with a Latin font, this button may also be used to change to a Lao font. This operation will also adjust the Lao font size to the current Latin one.

The Unicode fonts can now be used in the same manner as the other fonts (new feature of this version 4).



Lao table sorting (see § 6)

The third button gives you access to the Lao table sorting function. You will be given the choice between the two main existing lexicographic order standards as well as the possibility to define the locations for the consonant clusters. These choices are made in the LaoWord configuration window (😊 button).



Lao romanizations (see § 5)

The fourth button gives you access to Lao texts romanizations. The three available possibilities are the free romanization (simple to read), the phonetic transcription (based on the International Phonetic Alphabet) and the transliteration (that transcribes the writing rather than the pronunciation). The selected text can either be transcribed in a separate window or be replaced by the transcription. You can set these parameters in the LaoWord configuration window (😊 button).



Lao-French electronic dictionary (see § 4)

The fifth button gives you access to a Lao-English dictionary. This lexicon is fully modifiable and expandable. You will have the possibility to modify the proposed translations (e.g. replace with or add German or Spanish translations) and to create new entry words.



Lao text formatting functions (See § 7)

The sixth button gives you access to formatting functions for your Lao texts. They will allow you to:

- Insert automatically hyphenation characters between the syllables to obtain a good formatting,
- Adjust the height of the accents (only when the font will contain two heights),
- Adjust the height of the ຶ and ື vowels (only when the font will contain two heights),
- Tie up above vowels with accents (only when the font will contain the ligatures).

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Lao-Latin toggle

This button enables to switch between Latin (English, French ...) and Lao text input. This is possible only with fonts that contain both Latin and Lao characters, so in particular with the Unicode fonts.



Online help

An online help is accessible through the eighth and last button.

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3. TEXT INPUT, LAO KEYBOARDS AND FONTS

3.1 Text input and Lao keyboards


The lack of widely used standard for the encoding of the Lao characters makes the typing of Lao texts quite complex. The keyboard (generally AZERTY or QWERTY) keys give different results depending on the font used.

The five keyboards

LaoWord solves this problem and offers you choice between five keyboard layouts:

a) Three "phonetic association" keyboards (inspired from the occidental keyboard layouts)

With those three keyboard, the *keyboard key - Lao character* association is **intuitive** and easy to remember. For example, the *a* key gives ຂ, *b* gives ບ, etc.

These keyboards will also enable you to insert an hyphenation character (when the font contains such a character) by entering the "CSL" key (*Widthless Character or in French Caractère Sans Largeur*) which is located at the '*' key on the keyboards. By this mean, you have the possibility to do an efficient **formatting/wordwrap** of your Lao texts by giving to Word the places where it should wrap words to the next line. This can also be performed in an automatic way (one "CSL" at each syllable) by using the *Text formatting functions* of LaoWord ( button, see § 7). The Alice 97 type fonts (fonts whose names end with "Lao" or with "95") as well as the Unicode ones generally include such an hyphenation character.

- Lao US (associating the Lao characters with the American keyboard keys),

~	~	!	໐	@	໑	#	໒	\$	໓	%	໔	^	^	&	&	*	CSL	(	(	)	)	_	໑	+	+	Backspace		
`	`	1	໑	2	໒	3	໓	4	໔	5	໕	6	໖	7	໗	8	໘	9	໙	0	໐	-	-	=	=			
Tab		Q	Q	W	W	E	ແ	R	ຢ	T	ຖ	Y	ຸ	U	ູ	I	໊	O	໋	P	ຜ	{	{	}	}	|	|	
		q	ໃ	w	ໄ	e	ເ	r	ຣ	t	ຕ	y	ຢ	u	ູ	i	໊	o	໋	p	ປ	[[]]	\	\	
Caps Lock		A	າ	S	ສ	D	ທ	F	ຝ	G	ງ	H	ຫ	J	ຢ	K	ຂ	L	ຫຼ	:	:	"	"	Enter				
		a	ຂ	s	ຊ	d	ດ	f	ຟ	g	ງ	h	ຮ	j	ຍ	k	ກ	l	ລ	;	;	'	'					
Shift			Z	ຮ	X	໊	C	ອ	V	ຫວ	B	ບ	N	ນ	M	ມ	<	໋	>	໋	?	?	Shift					
			z	໋	x	ຄ	c	ຈ	v	ວ	b	ບ	n	ນ	m	ມ	,	,	.	.	/	/						

Figure 3: Lao US layout (on QWERTY keyboard)

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- Lao France (same principle as Lao US but adapted to the French keyboards)

		1	໑	2	໒	3	໓	4	໔	5	໕	6	໖	7	໗	8	໘	9	໙	0	໐	°	°	+	+	Backspace		
2	2	&	໐	é	ັ	"	ຶ	'	໐	(	໐	-	◌	è	໐	_	ຯ	ຸ	฿	à	ງ	)	ຯ	=	໐			
Tab			A	າ	Z	ຳ	E	ແ	R	ຮ	T	ຖ	Y	ູ	U	໐	I	໐	O	໐	P	ຜ	"	"	£	£	Enter	
			a	ະ	z	ຶ	e	ເ	r	ຮ	t	ຕ	y	ຢ	u	໐	i	໐	ໂ	p	ປ	^	^	\$	ູ			
Caps Lock			Q	໐	S	ສ	D	ທ	F	ຝ	G	ກຸ	H	ຫ	J	ກູ	K	ຂ	L	ຫຼ	M	ໝ	%	໐	μ	μ		
			q	ໃ	s	ຊ	d	ດ	f	ຟ	g	ງ	h	ຮ	j	ຍ	k	ກ	l	ລ	m	ມ	ù	໐	*	CSL		
Shift			>	>	W	W	X	X	C	ອ	V	ຫວ	B	ພ	N	ໜ	?	?	.	.	/	/	\$	\$	Shift			
			<	<	w	ໄ	x	ຄ	c	ຈ	v	ວ	b	ບ	n	ນ	,	,	;	;	:	:	!	!				

Figure 4: Lao France layout (on AZERTY keyboard) ¹

- Clavier Lao France New (slightly different from the Lao France layout)

		1	໑	2	໒	3	໓	4	໔	5	໕	6	໖	7	໗	8	໘	9	໙	0	໐	°	°	+	+	Backspace		
2	2	&	໐	é	໐	"	໐	'	໐	(	(	-	-	è	"	_	໘	é	໐	à	໐))	=	=			
Tab			A	າ	Z	ຳ	E	ແ	R	ຮ	T	ຖ	Y	ູ	U	໐	I	໐	O	໐	P	ຜ	"	"	£	£	Enter	
			a	ະ	z	໐	e	ເ	r	ຮ	t	ຕ	y	ຢ	u	໐	i	໐	ໂ	p	ປ	^	~	\$	\$			
Caps Lock			Q	໐	S	ສ	D	ທ	F	ຝ	G	ກຸ	H	ຫ	J	ກູ	K	ຂ	L	ຫຼ	M	ໝ	%	໐	μ	%		
			q	ໃ	s	ຊ	d	ດ	f	ຟ	g	ງ	h	ຮ	j	ຍ	k	ກ	l	ລ	m	ມ	ù	໐	*	CSL		
Shift			>	>	W	໐	X	ຂ	C	ອ	V	ຫວ	B	ບ	N	ໝ	?	?	.	.	/	/	\$	\$	Shift			
			<	<	w	ໄ	x	ຄ	c	ຈ	v	ວ	b	ປ	n	ນ	,	,	;	;	:	:	!	!				

Figure 5: Lao France New layout (on AZERTY keyboard)

¹ The digram ຫຮ generated by the key R is theoretical (see Marc Reinhorn).

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b) Two keyboards deriving from the traditional typewriters layout

- Duang Jan,

~	ຫຼ	!	໑	@	໒	#	໓	\$	໔	%	໕	^	໖	&	໗	*	໘	(	໑	)	໒	_	໓	+	໔	Backspace		
`	*	1	ຢ	2	ຟ	3	ໄ	4	ຖ	5	໑	6	໒	7	ຄ	8	ຕ	9	ຈ	0	ຂ	-	ຊ	=	໐			
Tab			Q	ຣ໌	W	໐	E	ຣ໌	R	_	T	+	Y	໐໌	U	໐໌	I	ຮ	O	໙	P	J	{	-	}	/	|	|
			q	໐	w	ໄ	e	ຣ໌	r	ຟ	t	໒	y	໐	u	໐	i	ຮ	o	໙	p	ຍ	[	໙	]	ລ	\	\
Caps Lock			A	໒	S	;	D	.	F	,	G	:	H	໒	J	.	K	!	L	?	:	%	"	=	Enter			
			a	໒	s	໙	d	໑	f	໐	g	໒	h	໒	j	.	k	໑	l	ລ	:	໐	'	໑				
Shift				Z	"	X	(	C	໑	V	x	B	໐໌	N	໐໌	M	໑	<	໙	>	\$	?	)	Shift				
				z	໒	x	໙	c	໒	v	໑	b	໐	n	໐	m	໙	,	໙	.	໑	/	໒					

Figure 6: DuangJan layout (on QWERTY keyboard)

- Sida Thong (same principle as DuangJan but adapted to the Danish keyboards),

!	໑	"	=	#	໓	໒	%	໕	^	/	&	໗	*	໘	(	໑	)	໒	_	໓	+	໔	Backspace			
1	ຢ	2	ຟ	3	ໄ	4	ຖ	5	໑	6	໒	7	ຄ	8	ຕ	9	ຈ	0	ຂ	+	໐	'					໐
Tab	Q	ຣ໌	W	໐	E	ຣ໌	R	_	T	+	Y	໐໌	U	໐໌	I	ຮ	O	໙	P	J	Å	-			|	|
	q	໐	w	ໄ	e	ຣ໌	r	ຟ	t	໒	y	໐	u	໐	i	ຮ	o	໙	p	ຍ	å	໙	"	ລ	'	໑
Caps Lock	A	໒	S	;	D	.	F	,	G	:	H	໒	J	.	K	!	L	?	Æ	%	Ø	໒	Enter			
	a	໒	s	໙	d	໑	f	໐	g	໒	h	໒	j	.	k	໑	l	ລ	æ	໐	ø	໑				
Shift	Z	"	X	(	C	໑	V	x	B	໐໌	N	໐໌	M	໑	<	໙	>	\$	?	)	Shift					
	z	໒	x	໙	c	໒	v	໑	b	໐	n	໐	m	໙	,	໙	.	໑	/	໒						

Figure 7: Sida Thong layout (on Danish QWERTY laptop keyboard) ¹

With LaoWord, you will have the possibility to use any of these five keyboards without having to mind which font is used. For this, it is enough that the font is recognized by the software. You will find at chapter 3.4 the list of fonts that LaoWord recognizes at its version 4.1 release.

Keyboard selection

You will have the possibility to select your preferred layout in the "keyboard" field of the configuration window (😊 button) or via the Ctrl+K shortcut (if activated). In this latter case, each time you will enter Ctrl+K, a new keyboard layout will be selected, circularly. You will see your new selection in the Word information bar, at the bottom of the Word window.

¹ There are different existing layouts for the Danish keyboards. The *Sida Thong* layout is an adaptation of the *DuangJan* to map one of them.

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Independence from the selected font

Once you have selected a keyboard, you can start typing text without minding which font is used¹. When a non-Lao font is used, the default keyboard layout is automatically active (AZERTY or QWERTY).

NOTA 1: You have the possibility to enter your texts by using LSWin (notice that you are then limited to the LSWin compatible fonts).

In this case, you have to deactivate the LaoWord input function in order to use "Keyman", the text input software of "Lao Script for Windows". For this, click on the 7th button and switch off the lamp. In this mode, the Lao input function is inactive but all the other LaoWord functions remain available.

In the same manner, if you want to use the text input function of LaoWord to enter your Lao texts, deactivate LSWin/Keyman (select English input).

NOTA 2: The Word 6/95 format is not compatible with Unicode. If you are using a Unicode font in a Word 6/95 document, please save this document in a more recent format (Word 97 / 2000 / XP / 2003).

¹ The five proposed Lao keyboards, Lao US, Duang Jan, Sida Thong, Lao France and Lao France New, are usable only with the Lao fonts for which an associated transcribing file exists (".pol" files). These files, that contain a description of the fonts, are essential for transcribing. If you do not have this type of file for a font you wish to use, write us joining a copy of this font to your mail (".ttf", ".otf"... file) so we may make its transcribing file for you. In chapter 3.4, you will find a list of fonts for which a transcribing file does exist (.pol files).

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3.2 Families of character fonts

The Lao TrueType fonts are now numerous. Though the Unicode Standard starts being used for Lao, the old unstandardized 8 bit fonts are still widely used. Some fonts are listed below, by more or less compatible groups. They can be found, for many of them, on the Internet.

Alice 92 type

Born in 1992, these early TrueType fonts do not contain the occidental characters. The fonts called "Hongkad", from the name of their author, offer very interesting stylized models. They are among the first fonts he designed.

EXAMPLES: alice_0, alice_1, alice_2, alice_3, alice_4, alice_5, alice_7, Alice_new, ANUNORM, anuvong A, ATYPO1, ATYPO2, HONGKAD2, HONGKAD4, HONGKAD5, HONGKAD6, HONGKAD7, HONGKAD8, HONGKAD9, HONGKAD10, HONGKAD12, HONGKAD14, HONGKAD15, HONGKAD16, HONGKAD18, Lao, LaoBanna, LaoCaligraphy, Laolium, LaoPatin, LaoSquare, Laos Standard, Lao Standard { SengChanh (C) }, LaoTangdeane, Sayawath, SE-LAO_0, SE-LAO_1, SE-LAO_2, SE-LAO_3, SE-LAO_4, Src_0, Src_1, Src_2, Src_3, Src_4, Src_5, Src_6, Src_7, Src_8, Xayavath.

Alice 97 type ("Lao" and "95" Suffixes)

Appeared in 1997, these fonts offer Anglo-Saxon characters (but not accented letters, nor c cedilla, for example). Their structure is inspired from the Thai TIS 620 2529 standard issued by the Thai Industrial Standards Institute. These fonts can be used to type both English and Lao texts.

EXAMPLES: Alice0 Lao, Alice1 Lao, Alice2 Lao, Alice3 Lao, Alice4 Lao, Alice5 Lao, Bubble Lao, Chantabouli Lao, Hollow Lao, Saysettha Lao, Alice0 95, Alice1 95, Alice2 95, Alice3 95, Alice4 95, Alice5 95, Bubble 95, Chantabouli 95, Hollow 95, Saysettha 95.

Lao France type

This font is an adaptation for Windows of the fonts for MacIntosh developed by Dr. Lamvieng Inthamone at the National Institute of the Eastern Language and Civilization in Paris. It allows the input of Lao texts using the intuitive Lao France keyboard, without any need of an extra software and is also the base of the Lao France keyboard layout definition. This font does not offer the occidental characters.

EXAMPLE: LaoFrance.

Unicode type

Unicode fonts containing the Lao characters are available, at last, since Spring 2001. These fonts are based on the 16 bit characters Unicode standard (the other fonts using 8 bit characters), the Lao range being between 0E80 and 0EFF (see <http://www.unicode.org/>). We strongly invite you to use these fonts for your texts.

EXAMPLE: MahaSila, KhaoPoun, PhrasongLao, FONT LAO 1 TT, Saysettha OT, Saysettha Unicode, JG Basic Lao, Times New Roman Lao.

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3.3 Font change


As we have seen before (§ 3.2), Lao fonts are generally incompatible, either because they are coming from completely different families of fonts or because they have small differences even if they belong to the same family.

For example, if we ask Word to change the following text typed with the Saysettha Lao font (Alice 97 family) into the Src_4 font (Alice 92 family):

ເລື່ອງຕາບອດຄຳຊ້າງ.

It will give the following result:

□□□□□□□□□□□□□□□□.

With LaoWord, you will have the possibility to change the selection's font by clicking on the  icon (see a description of the LaoWord toolbar in chapter 2). You will obtain the following window where you will select Src_4 and then click OK (this window gives you the list of all the Lao fonts that are usable in LaoWord and only them).

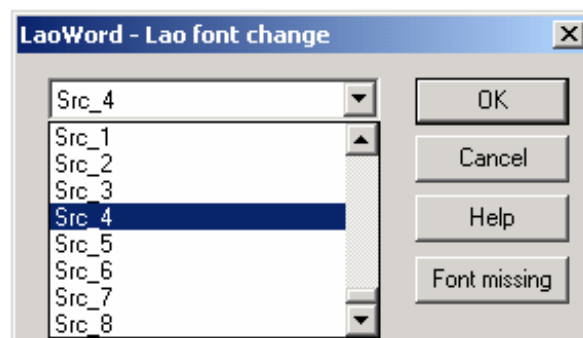



Figure 8: Font change window

You will obtain:

ເລື່ອງຕາບອດຄຳຊ້າງ.

The Lao fonts have not only different encoding but also different size. This size will automatically be adapted by LaoWord during font changes so that the text keeps approximately its original size (you will notice that the size indication has changed in the *Font size* field of the Word toolbar).


NOTA 1: When you will be typing text with Latin characters (e.g. French or English) and that you will want to change and write in Lao, the  icon will open the above window so that you can choose your Lao font. The new font size will be adjusted to match the size of the text you were typing with Latin characters.

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NOTA 2: Changing from one font to another is done automatically thanks to the use of *transcribing files* (files with the ".pol" suffix, see § 3.4). If you cancel a Lao font change, then you will have to successively cancel three actions: the codes change (due to the transcribing), the size change and the font change itself. You will then have to click on the *Undo* icon or enter *Ctrl+Z* or do *Edit/Undo* several times. See the next chapter for more explanations on the transcribing files and principles. In particular, you will find there the list of fonts recognized by LaoWord at the moment the 4.1 version is released.

NOTA 3: In the 4.1 version of LaoWord, the font change will work properly only if the selection contains only one font. If your selection contains more than one font, do it several times, each individual font change acting on a selection that contains only one font. To know if your selection contains only one font, look in the field that gives the face name of the current font (*Font* field of the Word toolbar). If the field is empty, then the selection contains more than one font.

Widthless Character (WLC or CSL)

We have encountered the hyphenation character when we talked about the Lao France keyboard layout. It is an invisible and *widthless character* (it is called soft hyphen or Zero Width Space / ZWSP in the Unicode terminology) that Word interprets as a potential word break (as the common hyphens). For your texts formatting, you can insert this character manually by simply typing '*' where you want the word wraps to be done (only with the Lao France keyboard layout) or automatically with the text formatting function ( button, see § 7).

Because all the fonts do not have this "ZWSP", the font change may happen to be limited due to the absence of this character in the new font. In such a case, a message is issued to inform that the hyphenation characters from the original text will be removed by the font change.

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3.4 Fonts and transcribing files

Lao fonts

To date, hundreds of more or less good quality **Lao fonts** exist. Because the fonts are independent of the word processing functions (fonts are operating systems related objects), they are not included in the LaoWord package. However, one 8 bit font (LaoFrance) and one Unicode font (MahaSila) are provided so that you can start writing texts in Lao, if you have no other font yet in your computer.

You are free to look for the fonts that suit you and to install them on your PC. To help you doing that, we have selected some web sites offering Lao fonts (please, go to www.laosoftware.com, TrueType fonts section).

When you will have downloaded these fonts, don't forget to install them so that they are available for use (see the Windows help for their installation).

Transcribing principles

The Lao functions of LaoWord are based upon the **principle of transcribing**. So, if you want to use LaoWord with a given Lao font, you need:

- the **font** to be installed in the Windows system,
- a **transcribing file** for this font to exist in the LaoWord environment.

The names of these transcribing files have the general form: "Font name.pol" and they are sometimes called ".pol files". To date, more than one hundred fonts are recognized by LaoWord (i.e. a transcribing ".pol file" has been created for these fonts).

These fonts are (this list is not exhaustive): *alice_0*, *alice_1*, *alice_2*, *alice_3*, *alice_4*, *alice_5*, *Alice_5a*, *alice_7*, *Alice_new*, *Alice0 Lao*, *Alice0 95*, *Alice0 2000*, *Alice0 Unicode (Unicode)*, *Alice1 Lao*, *Alice1 95*, *Alice1 2000*, *Alice1 Unicode (Unicode)*, *Alice2 Lao*, *Alice2 95*, *Alice2 2000*, *Alice2 Unicode (Unicode)*, *Alice3 Lao*, *Alice3 95*, *Alice3 2000*, *Alice3 Unicode (Unicode)*, *Alice4 Lao*, *Alice4 95*, *Alice4 2000*, *Alice4 Unicode (Unicode)*, *Alice5 Lao*, *Alice5 95*, *Alice5 2000*, *Alice5 Unicode (Unicode)*, *Arial Unicode MS (Unicode)*, *Bubble Lao*, *Bubble 95*, *Chantabouli Lao*, *Chantabouli 95*, *Code2000 (Unicode)*, *FONT LAO 1 TT (Unicode)*, *FONT LAO 1 TT (Unicode)*, *FONT LAO 2 (Unicode)*, *FONT LAO 2 TT (Unicode)*, *FONT LAO 3 (Unicode)*, *FONT LAO 3 TT (Unicode)*, *FONT LAO 4 kaykhia uni keo (Unicode)*, *FONT LAO 4 TT (Unicode)*, *Hollow Lao*, *Hollow 95*, *Hongkad Chaofa Ngum*, *Hongkad Dokkhuun*, *Hongkad Ekalad*, *Hongkad Handwriting1*, *Hongkad Itsala*, *Hongkad Lanxang*, *Hongkad Nyuvaphone*, *Hongkad Phetsalath*, *Hongkad Sabai*, *Hongkad Samsaenthai*, *HONGKAD2*, *HONGKAD4*, *HONGKAD5*, *HONGKAD6*, *HONGKAD7*, *HONGKAD8*, *HONGKAD9*, *HONGKAD10*, *HONGKAD12*, *HONGKAD14*, *HONGKAD15*, *HONGKAD16*, *HONGKAD18*, *HONGKAD47*, *JG Basic Lao (Unicode)*, *JG Chantabouli Lao (Unicode)*, *JG Lao Old Arial (Unicode)*, *JG Lao Oldface (Unicode)*, *JG LaoTimes (Unicode)*, *KhaoPoun (Unicode)*, *Lao Light*, *Lao Unicode (Unicode)*, *LaoBanna*, *LaoCaligraphy*, *LAOFont*, *LaofontNM*, *Lao-France Reinhorn*, *LaoFrance*, *LaoPatin*, *Laos Standard*, *LAOS_TPC1*, *LaoSquare*, *LaoTangdeane*, *MahaSila (Unicode)*, *Montaigne Lao*, *PhrasongLao (Unicode)*, *Saysettha Lao*, *Saysettha 95*, *Saysettha 2000*, *Saysettha OT (Unicode)*, *Saysettha Unicode (Unicode)*, *SE-LAO_0*, *SE-LAO_1*, *SE-LAO_2*, *SE-LAO_3*, *SE-LAO_4*, *Src_0*, *Src_1*, *Src_2*, *Src_3*, *Src_4*, *Src_5*, *Src_6*, *Src_7 et Src_8*, *Times New Roman Lao (Unicode)*, *VangVieng Unicode (Unicode)*, *VangVieng 2000*, *XiengThong Unicode (Unicode)*, *XiengThong 2000*.

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NOTA: If you are using a font for which the ".pol file" is not done yet (or at least if it is not installed on your computer), this will have as a consequence that this font will not appear in the displayed font list (see figure 8), and then that you will not have the possibility to change your texts into this font.

Transcribing files

In addition to the fonts, LaoWord needs and provides **transcribing files** to work. Several cases may arise depending on whether you have the font and the transcribing file or not:

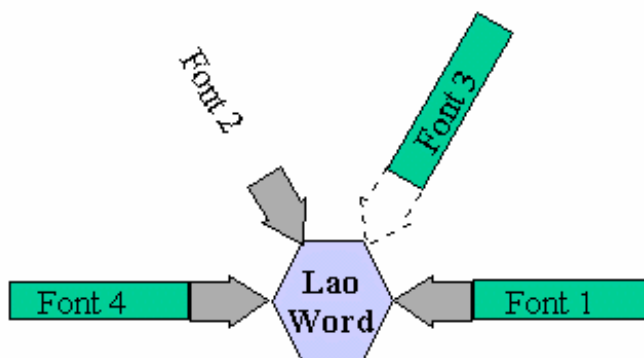


Figure 9: Fonts and transcribing files

In the above figure, the transcribing files are represented by arrows symbolizing the compatibility of the fonts with LaoWord.

1) You are using font n° 1 or 4 for which transcribing files are installed (arrows).

In this case, you can use them in LaoWord.

2) You do not have font n° 2 for which a transcribing file is installed (arrow).

If you want to use it, you can seek it on the Internet or in a specialized shop, and install it. You will then be back in the first case.


3) You want to use font n° 3 for which the associated transcribing file is not installed (no arrow).

In this case, the compatibility of this font with LaoWord is not done: you have to add the transcribing file corresponding to this font. For that, you can go to the www.laosoftware.com web site and see if the last update includes this transcribing file. If you do not find it there, send us the file of your font in a mail (file with the ".ttf" extension). We will send you back the proper transcribing file. Then, for using your font, simply copy the new transcribing file into the transcribing files binder (C:\LaoWord\Transcod).

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4. LAOWORD DICTIONARY

LaoWord 4.1 includes a small Lao-English dictionary.

To obtain the [English translation of a Lao word](#), enter this word using any font that suits you (provided that it is recognized by LaoWord, see § 3.4) and select it¹. Then, click on the  icon. If the word is in the lexicon database, its translation will be displayed in the following dialog window.

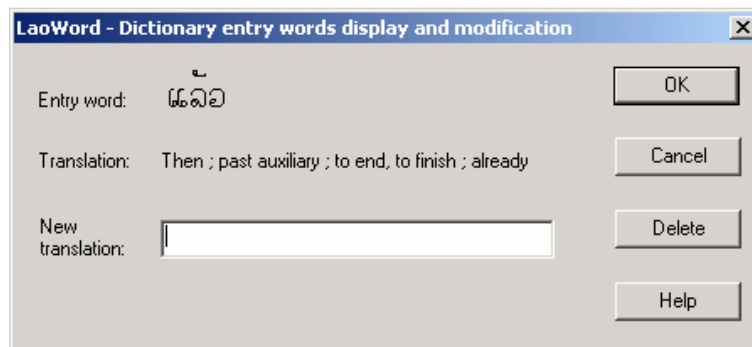


Figure 10: Main LaoWord dictionary window

Select OK or Cancel to go back to the text in Word.

To [modify the proposed translation](#), you just have to type the modified translation in the *New translation* field of the window before clicking *OK*. This translation will then have updated the lexicon database. In order to avoid any mistake, a confirmation window is displayed. Click *Yes* to confirm the modification or *No* in case of mistake.

To [delete an entry word from the lexicon](#), select the Lao word and click on Delete. In order to avoid any mistake, the following confirmation window is displayed.

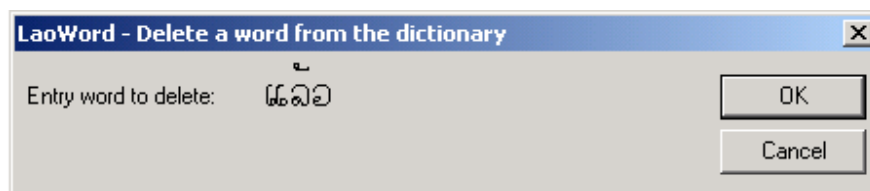


Figure 11: Deletion confirmation Window

Click *OK* to confirm the current entry word deletion or *Cancel* in case of mistake.

When the word you are looking for the translation is not in the lexicon yet, the dialog window will indicate *Unknown word* in the *Translation* field. In order to [add this word to the lexicon](#), you may enter your translation in the *New translation* field of the window and then click *OK*. To avoid any mistake, a confirmation window is displayed. Click *Yes* to confirm the addition of the word or *No* in case of mistake.

¹ The most convenient way to make this selection is to use the mouse in the LaoWord selection mode (see § 8). In this mode, it will be easy to select the word because the selection will be done syllable by syllable.

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5. FREE, PHONETIC AND PHONOLOGIC ROMANIZATIONS

LaoWord 4.1 offers three "romanizations" for Lao texts:

- The free romanization,
- The phonetic romanization,
- The transliteration, also called phonologic romanization.

The **free romanization** is quite a rough, but easy to read, transcription of the pronunciation. It requires no knowledge of the International Phonetic Alphabet.

The **phonetic romanization** is a transcription of the pronunciation that aims to be as stringent as possible. It is based on the International Phonetic Alphabet modified in accordance with the Lamvieng Inthamone rules.


The **phonologic romanization** transcribes, not the pronunciation but the Lao letters. For example, unlike the two other transcriptions, the phonologic romanization will give two different signs for low and high consonants such as ທ et ຖ, respectively th et 'th (note the apostrophe that indicates that the letter is a consonant of the high series).

To obtain the romanization of a selection, select it as shown hereunder

ຂຸນສຸນາງອົງ

ນິທານເລື່ອງນີ້ ກໍ່ຄວາມສະເໝີພາບໃຈແກ່ຜູ້ຄົນແຕ່ບູຮານ
ພະການມາແລ້ວ. ເລື່ອງເລີ່ມຕົ້ນຂຶ້ນ ເມື່ອແມ່ຍິງສອງຄົນ
ພາກັນໄປອາບນ້ຳ ຢູ່ແຄມທ່າ, ນ້ຳຫ້ວຍໃສ ໄຫຼເຍັນຈົນຫຼຽວ
ເຫັນໝູ່ປາ, ບາງຄັ້ງກໍ່ມີໃບໄມ້ແຫ້ງຫຼິ້ນໄຫຼມາຕາມໝ້ານ້ຳ.

Figure 12: Selection of text

and then click on the fourth icon: .

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A window containing the romanization will appear as in the next example that illustrates a free romanization.

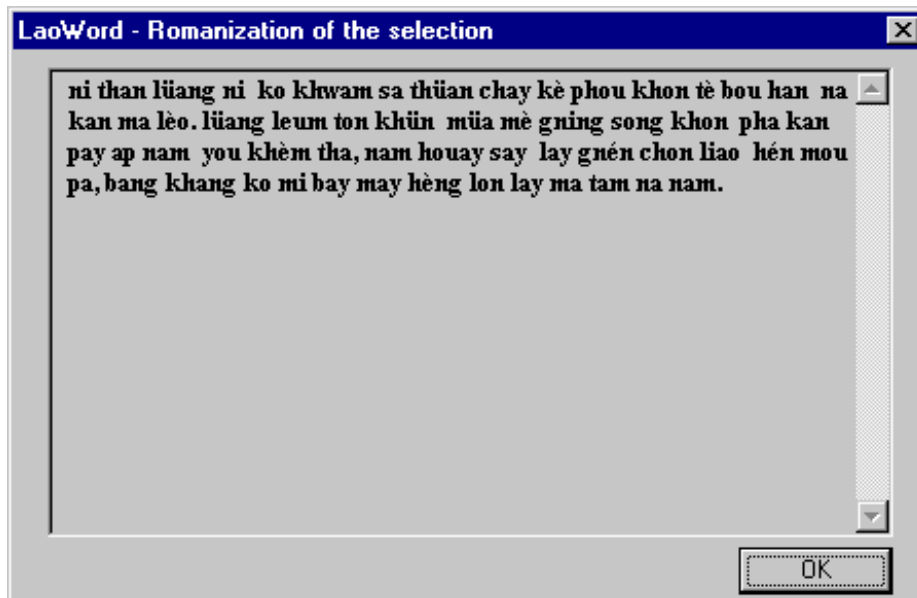


Figure 13: Free romanization displayed in a window

If you wish, you can also set the LaoWord parameters in such a way that the romanization will not appear in a separate window but replace the selected text, as in the following example.

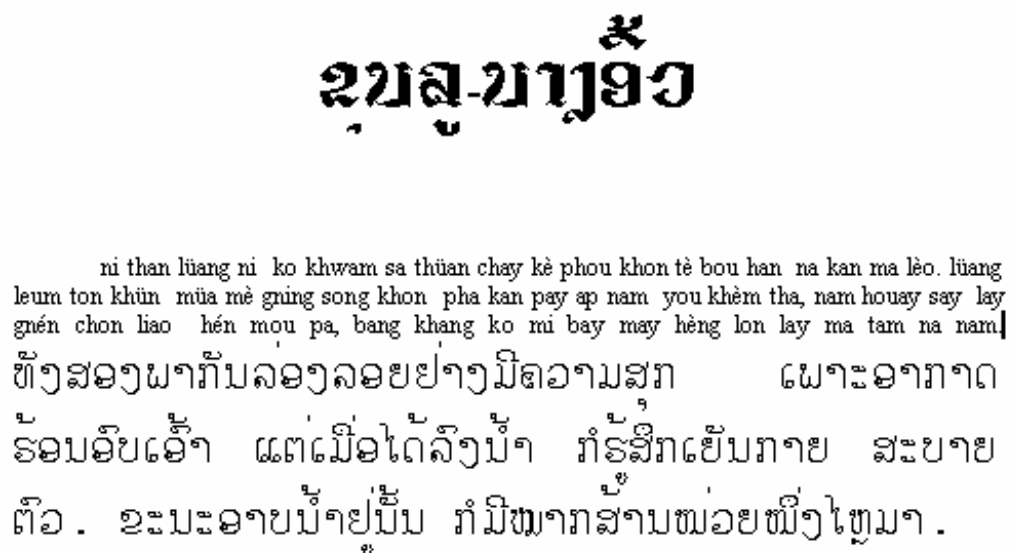


Figure 14: Selected text replaced with its romanization

For this, select "Replace the text" in the "Mode" parameter of the romanization options (LaoWord configuration window, 😊 button, see § 9).

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The text that we selected in ຂຸນລູ ນາງອີວ will give:

- in "free" romanization:
ni than lüang ni ko khwam sa thüan chay kè phou khon tè bou han na kan ma lèo. lüang leum ton khün müa mè gning song khon pha kan pay ap nam you khèm tha, nam houay say lay gnén chon liao hén mou pa, bang khang ko mi bay may hæng lon lay ma tam na nam,
- in "phonetic" romanization:
ni t^ha:n lùè:aŋ nî: kò: k^hwa:m sa t^hu:an cay kè: p^hù: k^hon tè: bu: ha:n na ka:n ma: lê:w. lùè:aŋ lò:m tôn k^hu:n mù:a mè: ɲiŋ sɔ:ŋ k^hon p^ha: kan pay ʔa:p nām yù: k^hɛ:m t^hà:, nām hù:ay sǎy lǎy ɲen con ʔi:aw hén mù: pa:, ba:ŋ k^hañ kò: mi: bay mǎy hɛ:ŋ lɔn lǎy ma: ta:m nà: nām,
- in "phonologic" romanization (transliteration):
ni tha:n lùà:ŋ1 nì:2 kò:l khwa:m 'sa thùà:n cae kɛ:l 'phu:2 khon tɛ:l bu: ha:n na ka:n ma: lɛ:w2. lùà:ŋ1 lœ:m1 ton2 'khùn2 mùà:l mɛ:l ñiŋ 'sɔ:ŋ khon pha: kan pai ʔa:b nam2 yu:l kɛ:m tha:l, nam2 'hwa:y2 'sae lai ñien con lia:w 'hen mu:l pa:, ba:ŋ khaŋ2 kò: mi: bae mai2 'hɛ:ŋ2 lon1 lai ma: ta:m na:2 nam2.

NOTA 1: The tones transcribed by the phonetic romanization are Vientiane's. Note that accents 3 and 4 are not taken into account in this version of LaoWord.

NOTA 2: Transcriptions are limited in two points.

- Typing and spelling errors are not detected. So if an accent is at a wrong place or if a vowel is missing, a wrong romanization will be given.
- The Lao script has several intrinsic ambiguities of reading, due to the consonant clusters. for example, ມຸວ can be read mwɛ: as well as mɛ:w.

As LaoWord performs no grammatical or lexical analysis, it will give arbitrarily any one of the different possible readings.

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6. LAO TABLE SORTING

6.1 Lexicographic orders

There are mainly two lexicographic orders for the Lao words¹, differing by the priority given to the vowel and to the final consonant. They are:


- The phonologic order (priority order: C V D FC A)², proposed and used by Marc Reinhorn in his Lao-French dictionary,
- The order used for example by Maha Sila in his Lao dictionary (priority order: C FC V D A).

Let's take as an example the words **ສານ**, **ສາມ** and **ສຸດ**. With Marc Reinhorn's convention, the order will be **ສານ**, **ສາມ** and **ສຸດ** (the vowel has the priority) and with Maha Sila's, the order will be **ສຸດ**, **ສານ** and **ສາມ** (the consonant has the priority).

Any of these two lexicographic orders can be chosen for your sorts. The parameters settings are done in the LaoWord configuration window (😊 button, see § 9).

The digraph consonants location (ᨆᨇ, ᨆ, ᨇ, ...) also depends on the dictionaries authors. LaoWord gives you the possibility to put them either after the high consonant ᨆ (Marc Reinhorn's order) or at the end of the alphabet (traditional order).

Lastly, the "guiding" consonant clusters (for example **ຄວ**), that also have erratic places in the wordlists, will have the possibility to be placed at the beginning or at the end of their initial letter (**ຄ** in the example).

These two last parameterizations (digraphs and "guiding" clusters) are also settable in the LaoWord configuration window. Click on  and then on "*Other parameters ...*" in the "*Sorting parameters*" area.

NOTA: For a detailed presentation of digraphs and consonant clusters, see Lamvieng Inthamone's book "Je lis et j'écris lao" (ຂອບອານຂອບຂຽນພາສາລາວ), INALCO 1987.

¹ If no word order is universally accepted yet, the consonants' order is almost universal (except the place of the digraphs that still depends on the author):

ကစ၍ ခုနစ် ဗုဒ္ဓ ဂုဏ်တရား နှစ်ပါး ဖြစ်သော ဗျာကုဏ် နှင့် ဗျာဓိကုဏ်
as well as the vowels':

[illegible]

2 Notations

C: Initial consonant, eventually consonant clusters

V: Vowel, independently of its duration and of its place (final or between consonants)

D: Duration of the vowel (short or long)

FC: Final consonant

A: Accent

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6.2 LaoWord sorting

If you need to put Lao words in lexicographic order, use the LaoWord sort after having set your sorting preferences (see § 6.1 and § 9).

Put your text in a table as in the following example.

ravaudeur, -euse nm., -f.	ຜູ້ຫຼິ້ນຜະລິດດາວເກີດ
rave nf.	ຫົວໜົກຂະໜາດໃຫຍ່
ravenala nm.	ດິນຫົວໜົກປະສົບ
ravenelle nf.	ດິນດອກຜຸດ
ravi, -e am., -f.	ຊົນເຜົ່າບາງ ດີໃຈ
ravier nm.	ຜະລິດນ້ຳ
ravigotant, -e am., -f.	ພາໃຫມ່ຜູ້
ravigoter vt.	ໃຫ້ກວ່າ, ພາໃຫມ່ຜູ້

Figure 15: Extract of a table to be sorted

Then select the lines and columns you want to sort and click on the  icon. You will obtain a window such as the following.

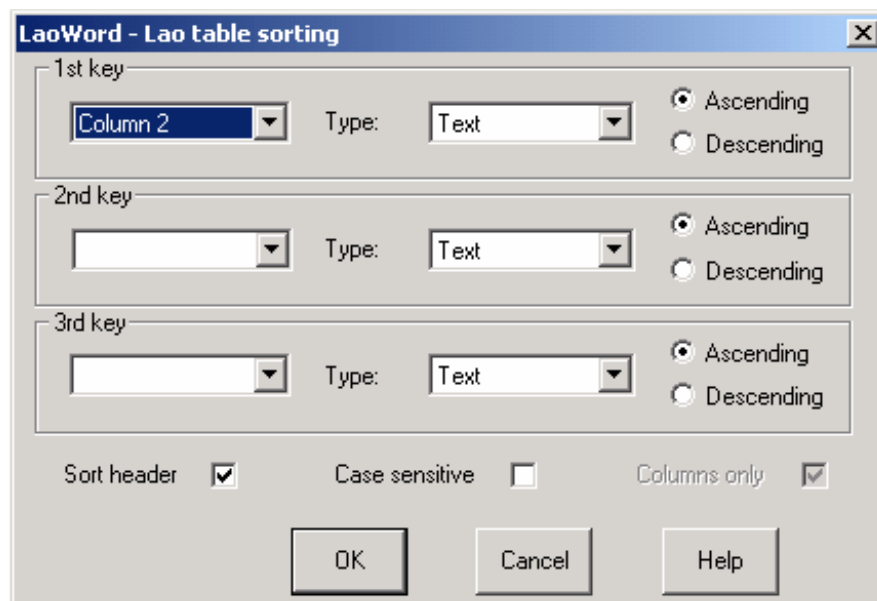


Figure 16: LaoWord sorting window

As you can see, this window follows the Word sorting logic. Several sorting criteria (keys) are possible, the sorting being done on the first key basis and, in case of strict cells identity, on the second and on the third keys.

LaoWord eases the parameter settings of its sorts by presetting the parameters with their most predictable value, depending on the selection to be sorted. In particular, it detects a column that is written in Lao and

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sets it as the first key, as in the above example where column 2 is automatically selected as "Text" and "Ascending order"¹.

The parameters proposed in the window are the classical Word sorting parameters:

- Text/Number/Date (always select "Text" for the columns in Lao),
- Ascending or descending order,
- Sort includes the first line or not (it may be a headline that we want to keep on the top),
- Case sensitivity (this parameter is ignored for the parts in Lao),
- Sort all the columns or only the selected ones (this parameter is accessible when not all the columns are selected, for example 2 columns in 3).

NOTA 1: As the romanizations, the sorting will give wrong results in case of spelling errors or reading ambiguity (see *NOTA 2* in chapter 5).


NOTA 2: The sorting function can operate in tables containing different fonts. However, each cell of the table will have to contain only one font. The cells containing more than one font will not be properly sorted.

NOTA 3: The repetition symbol ໆ (ໄມ້ຍະມະການ) is ignored.

¹ In our example, the 3rd key is not authorized because the table has only 2 columns.

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7. TEXT FORMATTING FUNCTIONS

After your text is typed, LaoWord gives you the possibility to improve its final aspect thanks to four functions which you will access via the  button.

Note that you will have to select the text to modify before calling these functions.

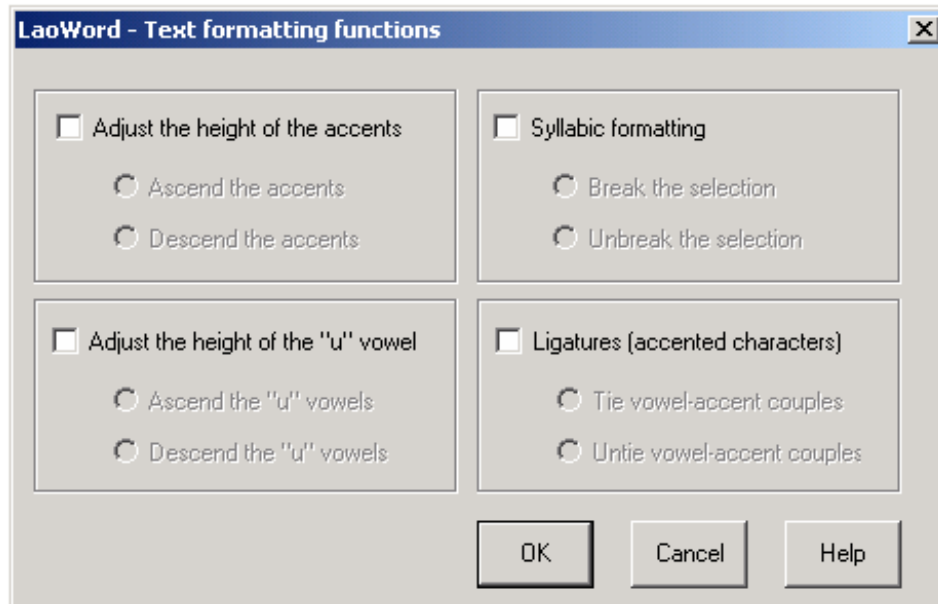


Figure 17: Text formatting functions window

Adjustment of the accents height

Some fonts offer two accents heights, in particular for accents 1 and 2, so it is possible to choose the accent that matches the best to the vowel's height. However, it happens that when the text is typed, a high accent is put with a low vowel or, and it is worse, a low accent is put with a high vowel so they are melted together. To fix the height of the accents of a selection, open the *Text formatting functions* window and select "*Adjust the height of the accents*" as well as the desired operation (ascend or descend the accents contained in the selection).

Adjustment of the "u" vowels height (x)

As for the accents, some fonts offer two heights both for short and long "sala u" (x et x̄). Proceed as with the accents if you wish to adjust the height of the "sala u" of a selection.


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Text formatting

This function inserts invisible hyphenation characters between the syllables of the selected text and thus contributes to a correct formatting of your texts in that it prevents the lines to end in the middle of syllables.

To access this function, select the "*Syllabic formatting*" and "*Break the selection*" boxes (default value) in the *Text formatting functions* window, then click *OK*.

NOTA 1: As all the fonts do not have this invisible hyphenation character, this function will not always be available. To know if your font contains such a character, you can try to type the "Widthless Character" (WLC) on the '*' key of the Lao US, Lao France and Lao France New keyboard layouts

(remember to activate the Lao text input: ). If nothing seems to happen when you type this character, that is because you inserted a "WLC" (which is invisible). In the other cases, you will obtain a "small square"¹. The Unicode fonts generally include such a character then called the ZERO WIDTH SPACE (ZWSP, code 200B) which is "nominally zero width, but may expand in justification" (Unicode 3.0 book).

If you need to remove the hyphenation characters of a selection, then select the "*Syllabic formatting*" and "*Unbreak the selection*" boxes in the *Text formatting functions* window.

Accented vowels ligature

Most of the Lao fonts contain ligatures that are made up with an above vowel and an accent (for example ຈຳ ົ). This is due to the traditional "Duang Jan" keyboard layout that contains such ligatures. The same fonts generally also contain the above vowels and the accents separately.

So it may happen, for example after several font changes, that a ligature is transformed into a vowel followed by an accent, even if the final font actually contains the ligature².

The accented vowels ligature function will allow you to transform the vowel-accent couples of a selection into ligatures and vice-versa, in order to achieve the most esthetic result³.

NOTA 2: When using Unicode fonts, the graphical optimization functions, when they exist, are handled directly by the font itself (e.g. the OpenType fonts). For this reason, the only text formatting function available for this type of fonts is the automatic wordwrap function.

¹ Then, in these cases, your font has not the "ZWSP".



² To avoid this, you can choose to make ligatures when you change font (see § 9 Automatic ligature of accented vowels).

³ Note that you will obtain the ligature ຈຳ ົ by typing successively ຈຳ ົ and ຈຳ ົ if you have selected the automatic ligatures during text input in the LaoWord configuration window (and also if the font contains the ligature, see § 9).

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8. LAO SELECTIONS

As we discussed before, in particular as we talked about the *Lao France* keyboard and the font changes, LaoWord offers a selection mode adapted to Lao texts. These selections will be active (and accessible via the mouse or via the keyboard) if you choose "Lao" in the "Selections" field of the configuration window (see § 9).

- The smiling face  of the LaoWord toolbar left icon indicates that the syllabic selections are active.
- The sad face , a contrario, indicates that the standard Word selections are active.

The absence of spaces between Lao words¹ makes the Word selections rather uncomfortable. LaoWord selection mode makes the selections of the Lao texts more natural, for example before a copy of text into the clipboard.


Try to double-click on the following text in *Standard Word* mode (sad face) then in *LaoWord* mode (smiling face) to evaluate the function.

ນິທານລ້ອງນີ້ ກໍ່ຄວາມສະເໝີພາບໃຈແກ່ຜູ້ຄົນແຕ່ບູຮານ ນະການມາແລ້ວ.

You will pass more simply from one mode to the other thanks to the Ctrl+Shift+L hot key. You are also invited to try the "mouse-move" selections as well as the following keyboard shortcuts (active only in LaoWord mode):

- shift the cursor to the next syllable by CTRL + →,
- shift the cursor to the previous syllable by CTRL + ←,
- add the next syllable to the current selection by CTRL + SHIFT + →,
- add the previous syllable to the current selection by CTRL + SHIFT + ←,
- suppress the syllable following the current selection by CTRL + SUPPR,
- suppress the syllable preceding the current selection by CTRL + BACKSPACE.

Ambiguous cases

The lao writing is ambiguous, i.e. some different syllables may be correct around a given position. In such a case, the selected syllable will be the longest possible correct syllable. The other syllables (not selected) remain accessible via the Ctrl-Shift-S hot key (the activation/deactivation of this shortcut is available in the configuration window,  button). By this way, the various possible syllables are selected one by one (video inversion), circularly.


Example: In the LaoWord selection mode, double-click on the ວ character of the word ຄວາມ. The whole word (ຄວາມ) should be selected. Then enter Ctrl+Shift+S. You will obtain ວາມ and if you enter Ctrl+Shift+S once more, ຄວາ, and then ຄວາມ again.

NB : The syllabic selections are optimized for Word 2000, XP and 2003.

¹ In English, words are separated by spaces. It is not the case in Lao where words are stuck together as were Greek or Roman words until the Romans start inserting dots between words on their monuments.

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9. LAOWORD CONFIGURATION

LaoWord 4.1 is fully parameterizable. To adapt it to your preferences, click on the  button and choose your options in the configuration window that appears.

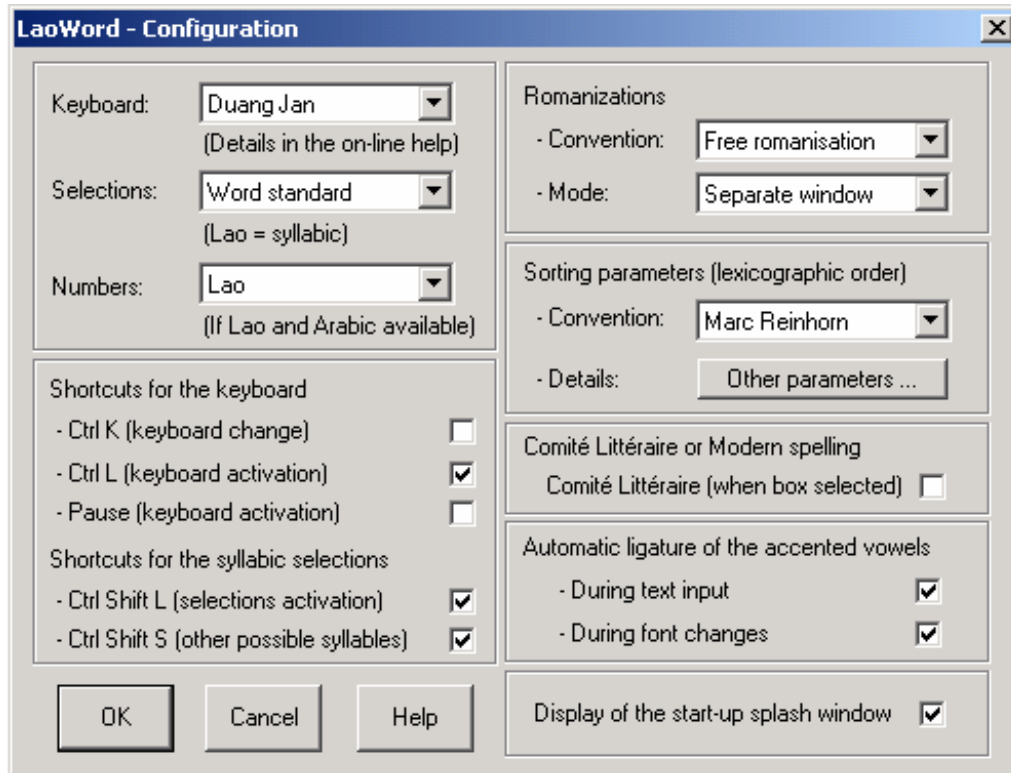



Figure 18: LaoWord configuration window

Let's see the different available parameters.

Keyboard

You are invited to choose the layout adapted to your needs among five different keyboards layouts. Go to chapter 3.1 for a detailed description of these possibilities.

Default value: Duang Jan

If you wish to simultaneously use "LaoWord" and "Lao Script for Windows", please take some precautions. In particular, the typing of texts is impossible if the LSWin icon and one of the LaoWord keyboard layouts are activated at the same time. When you will use LaoWord for typing, deactivate the LSWin icon (pass to English mode: "E"). In the same way, when you will use LSWin for typing, click on the 7th button  to switch off the light.

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Selections

This parameter refers to the selection that you perform on your text when you double-click or when you make the mouse move (the left button of the mouse remaining pushed). Select "Lao" for Lao style selections (by Lao syllables) or "Word standard" for the classical Word selections.

Default value: Word standard

Numbers

Several fonts (for example the Alice 97 family fonts, like Saysettha Lao) contain both Arabic (1, 2, 3, ...) and Lao (໑, ໒, ໓, ...) digits. Select "Lao" or "Arabic" depending on your preference. Obviously, if the current font contains only one kind of digits, it will be used.

Default value: Lao

LaoWord shortcuts (hot keys)

The shortcuts area offers the activation/deactivation of some shortcuts.

- Shortcuts for the keyboard

- **Ctrl+K:** This shortcut offers to switch from a keyboard to the other, circularly: *Lao US*, *Sida Thong*, *Duang Jan*, *Lao France*, *Lao France New* then *Lao US* again, etc.

Default value: Ctrl+K deactivated

- **Ctrl+L :** This shortcut offers to switch between an occidental keyboard layout (QWERTY, AZERTY) to a Lao one (see above the Ctrl-K shortcut for keyboard layout selection).

Valeur par défaut : Ctrl+L activated

- **Pause :** Same action as the previous shortcut.

Valeur par défaut : Pause deactivated

- Shortcuts for the selections

- **Ctrl+Shift+L :** This shortcut offers to switch between the Word standard selection mode and the Lao syllabic selection mode.

Valeur par défaut : Ctrl+Maj+L activated

- **Ctrl+Shift+S:** The Lao writing is ambiguous, i.e. several syllables split can be correct (for example, where should we cut, independently of the sense, the two syllables ກາຕາກ ?). In such a case, the syllable selected on the screen will be the longest possible correct syllable, then ກາຕາ and ຕາກ. The other possible syllables are reachable via the Ctrl+Shift+S shortcut. By this mean, the different possible syllables are selected one by one (video inversion), circularly. For example, after having selected ກາຕາ, Ctrl+Shift+S (if active) will give ຕາກ and then ກາຕາ again.

Default value: Ctrl+Shift+S activated

Romanizations

The "Romanizations" area will allow you to set the romanizations parameters. You will find a description of these parameters in chapter 5.

Default value: Free romanization, Separate window

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Sorting parameters

The "Sorting parameters" area will allow you to set the LaoWord sorting parameters. You will find a description of these parameters in chapter 6.

Default value: Marc Reinhorn Convention, Digraphs at the end of the alphabet, Consonant clusters after the initial consonant

Old / new spelling rules selection

The « Comité Littéraire or Modern spelling » area offers you to adapt the behaviour of the syllabic selection, of the lexicographic sorting and of the phonological transcriptions to the writing principles that you usually use. The main differences between the two writings include:

- some consonants groups: ຕຸ, ອຸ... (Comité Littéraire),
- some final consonants: ອ, ອ... (Comité Littéraire),
- the diphthongue /ia/ : ຕຸ້ຮ / ຕຸ້ຮ et ຕຸ້ຮ / ຕຸຢ (modern spelling / Comité Littéraire),
- the diphthongue /oi/ : ອຸ (Comité Littéraire),

NB : The Lao-English dictionary is only available in modern writing.

Default value: Modern spelling


Automatic ligature of accented vowels

Most of the Lao fonts contain ligatures that are made up with an above vowel and an accent (for example ັ, see § 7, section "Accented vowels ligature"). This is due to the traditional "Duang Jan" keyboard layout that contains these ligatures. The same fonts generally also contain the above vowels and the accents separately.

The "Automatic ligature of accented vowels" area enables you:

- to type directly these ligatures, even if you type accents and above vowels separately (option "*During text input*") and
- to transform the vowel-accent couples of a selection into ligatures during font changes (option "*During font changes*").

Default value: Ligatures during text input, Ligatures during font changes

NOTA: You will also have access to an accented vowels ligature function via the  button (text formatting functions). It allows you to transform vowel-accent couples into ligatures without having to change font (see §7).

Display of the start-up splash window

This option enables you to display or not the LaoWord splash window (the fishing at the village) each time you start Word.

Default value: Display the window